

Chief, Military Economics Branch, ORR

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THRU : Acting Chief, Industrial Division, ORR
Acting Chief, Shipbuilding Branch, ORR

Ruble/Dollar Ratios for Soviet Naval Ship Construction

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1. As a result of discussions with you during the past week regarding support material for [REDACTED] project, and to update ruble/dollar ratios to be used in NIE 11-4, it is suggested that the ruble/dollar ratio for submarines be 4.1/1 and the ruble/dollar ratio for surface fighting ships be 4.0/1.

2. The submarine ratio is the result of I/SH's most recent study of the cost of the "W" class submarine, which is soon to be published (ORR Project 35.2334). The ratio for surface fighting ships is a revision of the former ratio of 4.5/1 which resulted from the study of the cost to build a Skoryy destroyer (CIA/RR RA-24, 31 January 1958). This ratio was brought up to date by using essentially the same ruble/dollar ratios for component groups of the Skoryy as were used on the "W" class submarine. These ratios represent ORR's best and most current knowledge on this subject.

3. The component groups used and the ruble/dollar ratios at issue are summarized in the tabulation below:

(See attached sheet.)

4. The new ratios used for revision of the Skoryy ratio are identical with those used for the "W" submarine with two exceptions. The hull ratio used for the "W" submarine was 6.8/1 representing the large amounts of high tensile steel used in submarine hulls. The 5.7/1 ratio used for the Skoryy represents the ratio for ordinary steel sheet and shapes. The ratio used for the propulsion group of the "W" was 9.2/1 representing ratios for diesel engines and batteries. However, the Skoryy has a steam turbine propulsion system for which the currently estimated ratio is 5.0/1.

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ORR/I/SH, [REDACTED] jdt/4233 (19 Oct 59)

Cost Group	Cost in 1955 US \$ (Thousands)	Original 1955 ru/\$ used for Shor'Y	Revised 1955 ru/\$ used for Shor'Y	Original 1955 Rubles (Thousands)	Revised 1955 Rubles (Thousands)
Materials:					
Ball	443	5.5/1	5.7/1	2,400	2,500
Propulsion Machinery	3,639	5.1/1	5.0/1	19,000	18,000
Electric Plant	534	4.7/1	3.0/1	2,500	1,600
Communications & Control	2,330	7.6/1	6.0/1	18,000	14,000
Auxiliary Systems	284	5.5/1	3.5/1	1,400	900
Outfit	292	5.0/1	4.5/1	1,500	1,300
Armament	1,261	3.4/1	3.4/1	4,300	4,300
	8,750			49,000	43,000
Direct Labor:	3,180	1.6/1	1.8/1	5,100	5,700
Overhead:	1,900	4.2/1	3.6/1	8,000	6,800
	13,830			62,000	56,000